

CLAIMS

What is claimed is:

1. A transceiver module for use in a fiber-optic network system comprising:
 - a transceiver module casing;
 - a receiver subassembly disposed in the transceiver module casing; and
 - a transmitter optical subassembly disposed in the transceiver module casing, wherein the transmitter optical subassembly includes a header assembly having enclosed therein:
 - a thermoelectric cooler (TEC); and
 - a laser component capable of transmitting optical data a distance greater than 10 kilometers.
2. A transceiver module as set forth in claim 1, wherein the laser component is optimized to operate at an elevated temperature greater than 25 degrees Celsius.
3. A transceiver module as set forth in claim 1, further comprising a bail release coupled to an anterior end of the transceiver module casing.
4. A transceiver module as set forth in claim 1, wherein the transceiver module is constructed so as to comply with one or more of the SFF, SFP, and XFP Multi Source Agreements.

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5. A transceiver module as set forth in claim 1, wherein the laser component is an externally modulated laser and the distance is in a range of about 10 kilometers to 160 kilometers.

6. A transceiver module as set forth in claim 1, wherein the laser component is an externally modulated laser and the distance is in a range of 40 kilometers to 80 kilometers in a 10 Gb/s system.

7. A transceiver module as set forth in claim 1, wherein the transmitter optical subassembly comprises a platform having a conductive pathway extending through the platform and wherein a portion of the platform is exposed external to the transmitter optical subassembly.

8. A transceiver module as set forth in claim 7, wherein the conductive pathway comprises a plurality of isolated traces of a sufficient number to at least provide control signals to an integrated circuit laser driver.

9. A transceiver module as set forth in claim 7, wherein the conductive pathway forms a transmission line adapted to match the impedance of a component connected to a first end of the conductive pathway with a source intended to drive the component, wherein the source is intended to be connected to a second end of the conductive pathway.

10. A transceiver module for transmitting fiber optic data in a fiber optic system, the transceiver module comprising:

a transceiver module casing; and

a transmitter optical subassembly disposed in the transceiver module casing,

wherein the transmitter optical subassembly includes a header assembly having enclosed therein:

an externally modulated laser (EML) for transmission of optical data

a distance greater than 40 kilometers; and

a thermoelectric cooler (TEC) for cooling the externally modulated laser.

11. A transceiver module as set forth in claim 10, wherein the distance is in a range of 40 kilometers to 160 kilometers.

12. A transceiver module as set forth in claim 10, wherein the externally modulated laser is optimized to operate at an elevated temperature of about 40 degrees Celsius.